

MEMORANDUM

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OF THE FIRST US/USSR SYMPOSIUM ON PROJECT No 3
"DEVELOPMENT OF THE PRACTICAL METHODS OF
THE COST-BENEFIT ANALYSIS OF INFORMATION SERVICES"

Leningrad, June 1975

In accord with the minutes of the Third Session of the Joint US/USSR Commission on Scientific and Technical Cooperation, the First US/USSR Symposium on Cost-Benefit Analysis of Scientific and Technical Information was held on June 17 through 19, in Leningrad. The Symposium followed a coordinated program (Appendix 1). Six papers by Soviet and six papers by American participants were submitted for discussion. Specialists from the two countries (listed in Appendix 2) took part in the discussions.

The Symposium discussed the general methodological problems of and approaches to the evaluation of the economic efficiency of the generation, dissemination and utilization of information, as well as specific cases of the application of economic and mathematical methods for this sort of evaluation.

The papers presented fell into three broad categories:

- (1) Theoretical models of the use of scientific information to achieve the reduction of uncertainty in scientific and engineering activity;
- (2) Specific issues in cost-benefit analysis, such as discount rates and the estimation of benefits;
- (3) Empirical case studies of costs and benefits of STI systems and their contribution to innovation and the social returns of R&D.

It became clear to the participants that the value of information services is a function of the increase in productivity of the information user in his work. This is a difficult issue in itself, and requires substantial continued study that should be encouraged. In the interim we should encourage in both countries continued research into the practical problems of measurement of the economic efficiency of scientific information services and systems within the context of the larger problem. This recognizes the fact that we must continue to improve the operational efficiency of our information systems without awaiting the completion of the theoretical work.

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Despite some differences of approach between the American and Soviet participants, the evaluation of the economic efficiency and estimating the benefit derived from the use of scientific and technical information in the various fields of science, technology and management the Symposium has made it possible to formulate the conceptual propositions that are common to the two parties. It is felt that it would be desirable to continue the efforts in this direction of research into the cost-benefit analysis of information and to carry on mutual exchange of documents in this field.

Terminological problems of the economics of information were also discussed at the Symposium. One result of this discussion is a draft Bi-lingual Dictionary on the Economics of Information, to be included, in its tentative version, in the Proceedings of the Symposium; after further elaboration by the specialists of both countries, it will be published by each party for dissemination in their respective country.

The Symposium proceeded in a creative atmosphere, it was fruitful for both parties and promoted the identification of common scientific interests.

Having discussed plans for further work, the Joint Research Group on Project No 3 adopted the following recommendations, which are to be elaborated in correspondence between the US National Science Foundation and the USSR State Committee for Science and Technology:

1. That papers prepared for the Symposium will be available for dissemination to interested persons.
2. That research on the central problem of the project be continued, and that the results of the research be discussed at a Second US/USSR Symposium on Cost-Benefit Analysis of Scientific and Technical Information.
3. That a Second Symposium be held in the U.S. in June 1977 occupying a period of three days. Six participants from each group will deliver papers at that meeting. The host group may invite specialists to attend the Symposium, but their number should not exceed 25.
4. That the preliminary exchange of the documents for the Second Symposium in two languages (Russian and English) be carried out in accord with the following schedule:

- lists of participants and extensive abstracts of their papers be prepared in January 1977;

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- full texts of the papers be provided in April 1977.

5. The dictionary materials should be exchanged in March 1976; the final version of the Dictionary is to be agreed upon for publication at the Second Symposium.

6. The general subject of the Second Symposium will be "Methodological Principles for the Design of Cost-Benefit Criteria for Information Services". The following lines of research are suggested within the problem area of the Symposium:

(1) Economic identification of scientific and technical information--approaches and methods.

(2) Economics of information services.

(3) Case studies in the application of specific techniques of cost-benefit analysis of information services.

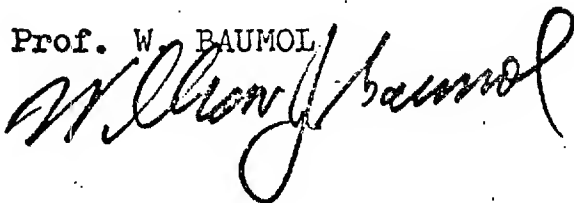
7. The parties consider it desirable to carry on an exchange of publications in the subject area of the Project during the period between the two symposiums.

8. The parties also consider it desirable to work toward the establishment of scientific communication with specialists in other countries working in this field and toward an exchange of relevant materials with them.

9. It is agreed that the procedures utilized in the Second Symposium will be similar to that followed in the First Symposium.

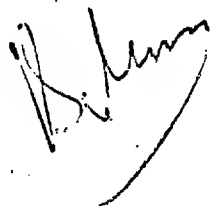
For the US Delegation

Prof. W. BAUMOL



For the USSR Delegation

Prof. V. S. MALOV



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The First US/USSR Symposium
on Development of Methods for Estimating Cost and
Benefits of Information Services.

P R O G R A M

Tuesday, 17 June

1st day

- 10:00 am The Symposium opens
Introductory remarks (V.MALOV,USSR)
- 10:10 am Greeting (O.NIKANDROV,USSR)
Greeting (J.GOLDHAR,USA)
Greeting (E.MANSFIELD,USA)
- 10:30 am Presentation of Papers
- Case Studies of Measurement of Benefits from Scientific Information and Technological Innovation (E.MANSFIELD,USA);
 - On Assessment of the Value of Information (E.YASIN,USSR);
 - A Formalized Approach to Information Evaluation in Decision-Making Processes (E.AFANASIEV, USSR);
 - The Evaluation of the Economic Benefit of Productive Information (R.WILLIG,USA);
 - Scientific Uncertainty and Economic Value of Scientific Information (E.BLIOKOV,USSR)
- 1:00 pm Interval
- 3:00 pm
- 3:00 pm Presentation of Papers
- Ambiguities in Applied R & D Cost-Benefit Analysis: Private Responses to Public Investments (S.BERG,USA);
 - A Model of a Scientific and Technical Information System Based on Economic Management Factors (V.VINIGRADOV,USSR)

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Wednesday, 18 June

2nd day

10:00 am The Symposium continues

Presentation of Papers

- Private Returns to R & D Investments in the USA (Z. GRILICHES, USA);
- Potential Efficiency of Information Services (I. POPOV, USSR);
- On the Theory and Practice of Discount Factor Calculation in Cost-Benefit Analysis (W. BAUMOL), USA.
- The Economic Efficiency of Information Activities in an Industry and Optimization of Information Processes (A. AZARNYKH, USSR);
- The Value of Automated Bibliographic Systems (L. Lave, USA);

1:00 pm

3:00 pm Interval

3:00 pm Discussion of Methods and Models of Economic Assessment of Information for R & D Prospects of such an Assessment.

Thursday, 19 June

3d day

10:00 am The Symposium continues

12:00 pm Discussion of the Vocabulary and Structure of the Bi-lingual Dictionary of Economics of Information

- Discussion of the Directions of Research under Project No. 3; drafting a working plan of the Research Group; formulation of the General Direction of the 2nd US/USSR Symposium under Project No. 3 and preparation of Memorandum on the 2nd Symposium.

12:00 am
2:45 pm

Interval

2:45 pm
4:45 pm

Visit to the Leningrad Center of
Scientific and Technical Infor-
mation

6:00 pm

Signing the Memorandum.

L I S T

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on Project No 3.

Research Group

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Prof. S.BERG,
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VINITI

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University of Florida

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Academy of Sciences, USSR

TSNIITEIlegpishemash

Harvard University

Carnegie-Mellon University

University of Pennsylvania

Moscow Engineering and Physics

Institute (MIFI)

MIFI

ONTITEImicrobioprom

Bell Laboratories

Central Economico-Mathematical

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